26

- capable of receiving fluid from the sponge sheath and the one or more sponge channels;
- a catheter having a distal catheter end, a proximal catheter end, and a lumen therethrough, wherein the distal catheter end of the catheter is removably coupled to the reservoir bag; and
- a suction/injection source coupled to the catheter at or near the proximal catheter end, the suction/injection source capable of providing suction within the lumen of the catheter and further capable of injecting a substance into the lumen of the catheter.
- 17. A method for using an endograft assembly, the method comprising the steps of:
  - delivering an endograft assembly within a vessel of a patient at or near the site of a vessel aneurysm, the endograft assembly comprising:
    - an endograft having an inner wall and an outer wall, and a graft structure positioned between the inner wall and the outer wall, the inner wall of the endograft defining an endograft lumen sized and shaped to permit fluid to flow therethrough,
    - a sponge sheath having a distal end and a proximal end, the sponge sheath coupled to the outer wall of the endograft and configured to permit flow of blood therethrough, the sponge sheath defining one or more sponge channels configured to permit fluid flow therethrough.
    - a reservoir bag coupled to the sponge sheath at or near the proximal end of the sponge sheath, said reservoir

- bag capable of receiving fluid from the sponge sheath and the one or more sponge channels,
- a catheter having a distal catheter end, a proximal catheter end, and a lumen therethrough, wherein the distal catheter end of the catheter is removably coupled to the reservoir bag, and
- a suction/injection source coupled to the catheter at or near the proximal catheter end, the suction/injection source capable of providing suction within the lumen of the catheter and further capable of injecting a substance into the lumen of the catheter;
- operating the suction/injection source to remove blood present within an aneurysm sac of the vessel aneurysm; and
- operating the suction/injection source to inject a substance into the aneurysm sac to form a cast at or near the site of the vessel aneurysm.
- 18. The method of claim 17, wherein the step of delivering the endograft assembly further comprises the step of deploying the endograft assembly within the vessel.
- 19. The method of claim 17, wherein the step of operating a suction/injection source to remove blood present within an aneurysm sac causes a wall of the vessel aneurysm to collapse toward the endograft assembly.
- 20. The method of claim 17, wherein the substance is capable of forming a cast within the aneurysm sac when it is injected to the aneurysm sac, said cast providing structural reinforcement to the vessel aneurysm.

\* \* \* \* \*